

# Radio Spectrum and Technical Standards Advisory Committee

## SSAC Paper No. 3/2021

### World Telecommunication Standardization Assembly 2020

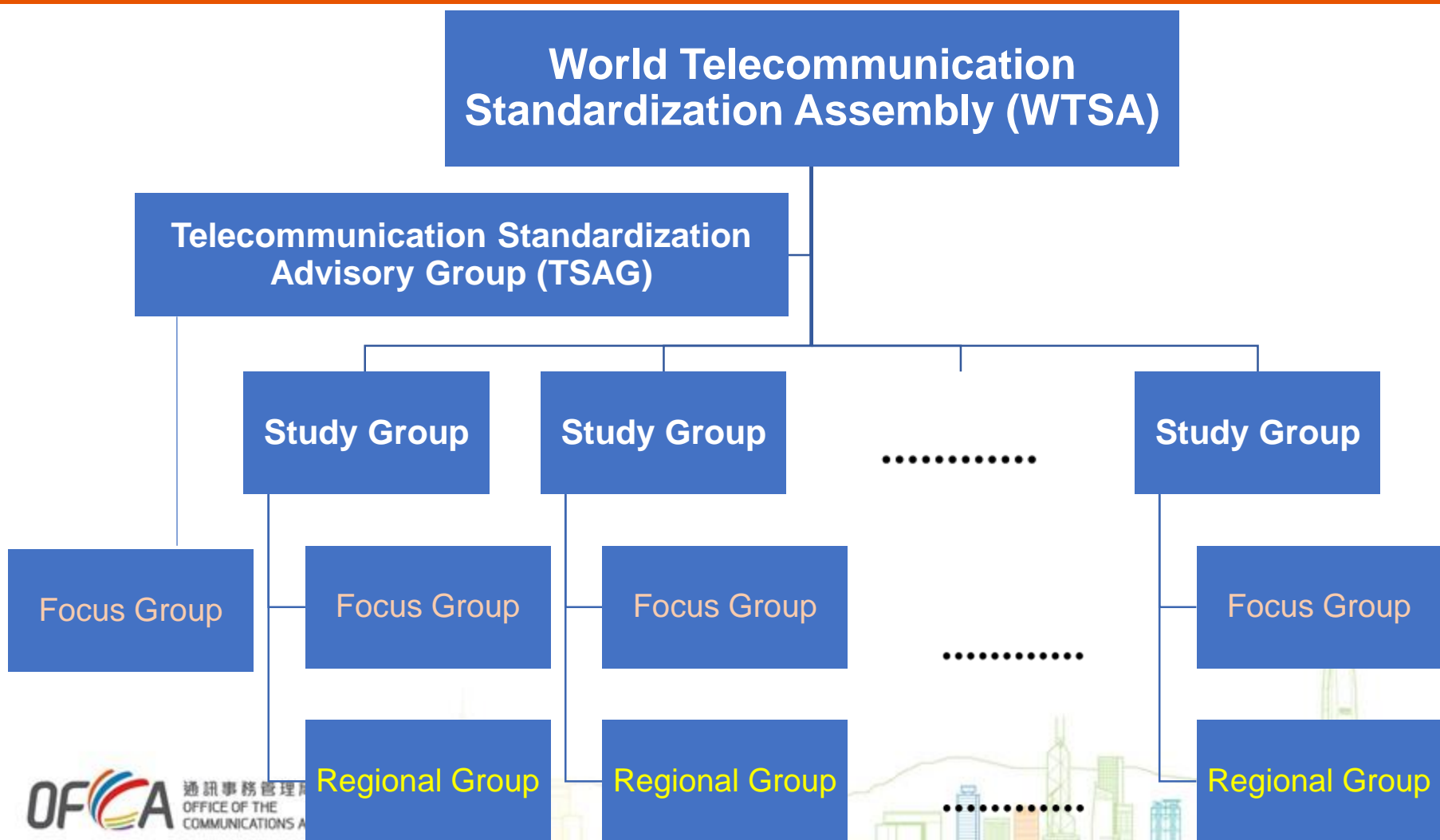
Office of the Communications Authority  
4 May 2021

# Telecommunication Standardization Sector (ITU-T)

- International Telecommunication Union (ITU) is a United Nations specialised agency for information and communication technologies (ICT) which is composed of –
  - Telecommunication Development Sector (ITU-D)
  - Radiocommunication Sector (ITU-R)
  - Telecommunication Standardization Sector (ITU-T)
- Among others, ITU-T coordinates the development of ICT standards, in the form of ITU-T Recommendations, for member administrations to follow



# Framework of ITU-T



# Working Structure of ITU-T

- **World Telecommunication Standardization Assembly (WTSA)**
  - conduct around every four years
  - set the overall work direction and structure for ITU-T
  - establish study groups (SGs), approve their work programmes of the next study period and appoint the chairmen and vice-chairmen
  - consider and approve resolutions and recommendations submitted by SGs
- **Telecommunication Standardization Advisory Group (TSAG)**
  - act as an advisory body to SGs
  - provide guidelines to SGs, produce working procedures and follow up on the accomplishment of work programmes
- **Study Groups**
  - study questions and develop draft Recommendations for ICT

# Working Structure of ITU-T (cont.)

## ■ Focus Groups (FGs)

- usually created on an ad hoc basis and short-lived as a focused effort on a specific topic to augment TSAG/SG
  - ▶ provide an alternative working environment for quick development of specifications

## ■ Regional Groups (RGs)

- SG might create RGs on a need basis
  - ▶ RG represents a particular region, say Asia Pacific region, with a view to contributing coordinated inputs among its member administrations to SG



# ITU-T Study Groups (2017 – 2020)

| SG | Title   |
|----|---|
| 2  | Operational aspects   |
| 3  | Tariff and accounting principles and international telecommunication/ICT economic and policy issues |
| 5  | Environment, climate change and circular economy  |
| 9  | Broadband cable and TV  |
| 11 | Signalling requirements, protocols, test specifications and combating counterfeit products          |
| 12 | Performance, QoS (Quality of Service) and QoE (Quality of Experience)                               |
| 13 | Future networks, with focus on IMT-2020, cloud computing and trusted network infrastructures        |
| 15 | Transport, Access and Home  |
| 16 | Multimedia  |
| 17 | Security  |
| 20 | Internet of things (IoT) and smart cities and communities (SC&C)                                    |

# World Telecommunication Standardization Assembly (WTSA)

- The last WTSA (i.e. WTSA-16) was held in Yasmine Hammamet, Tunisia, from 25 October to 3 November 2016



## ITU WTSA-20

- WTSA-20 was originally scheduled for 23 February to 5 March 2021 in Hyderabad, India
- Due to the pandemic, WTSA-20 has been postponed and is planned to be held from **1 to 9 March 2022**, still in Hyderabad, India

# Objectives of WTSA

- Promote cooperation among ITU-T members in decision-making on standardisation matters
- Collaborate with other ITU Sectors and standardisation bodies to avoid work duplication and inconsistencies
- Develop ITU-T Recommendations in a timely manner
- Provide support and assistance to developing countries in bridging the gap in relation to standardisation matters
- Disseminate information and know-how through ITU-T Recommendations and relevant materials



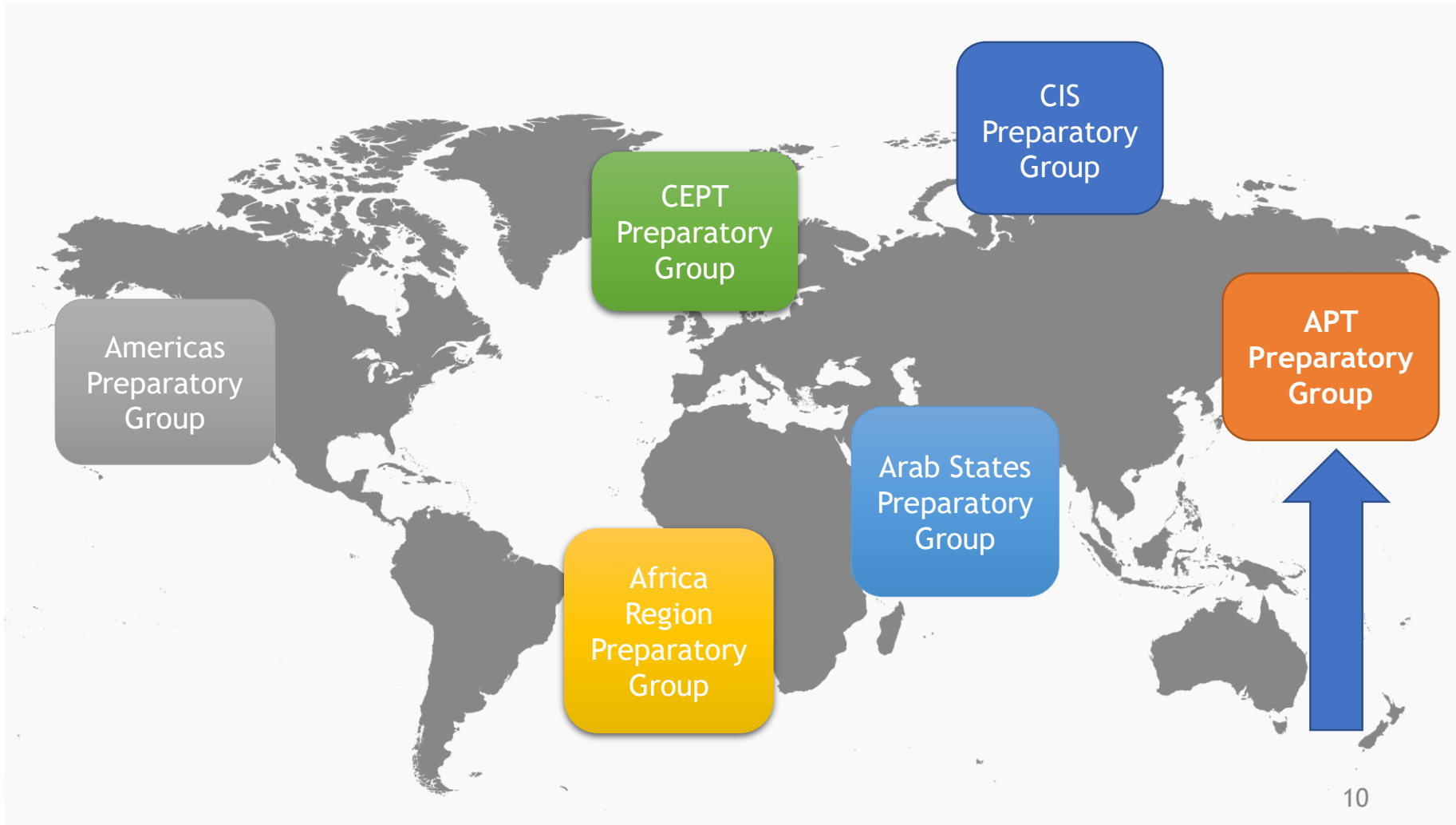


# Work of WTSA-20

- WTSA-20 will consider, among other things,
  - reports, draft Resolutions and Recommendations submitted by SGs and TSAG
  - proposals from Regional Preparatory Groups for WTSA-20
  - SGs' work and structure
- WTSA-20 will also
  - define the next period of study for ITU-T
  - appoint chairmen and vice-chairmen of SGs, TSAG and the Standardization Committee for Vocabulary (SCV, tasked to address the need for a harmonised understanding of all terms and definitions used in standardisation) for the next study period



# ITU Regional WTSA-20 Preparatory Meetings



# Inter-regional Meetings

ITU-T organises inter-regional meetings for preparation of WTSA-20

- Invite the respective regions to present the current status in respect of their preparations for WTSA-20
- Consolidate inputs from regional preparatory groups and compile a list of WTSA Resolutions to be discussed at WTSA-20
- One meeting has been held in 2020 and two meetings planned in 2021

# New Resolutions Proposed by Regional Preparatory Groups for WTSA-20

- Effectiveness of ITU-T
- The importance of industry engagement in the work of ITU-T
- Towards a more effective, efficient, fit for purpose, and inclusive ITU-T
- ITU-T's role in facilitating the use of ICTs to prevent the spread of global pandemics
- ICT role in early detection of global pandemic
- SMART cable systems
- Harmonised emergency call number for Africa
- New study question, OTT
- Emerging technologies (AI, Blockchain, etc.)
- Big data
- Using hexadecimal numbering to define MSISDN and IMSI

SMART: Science Monitoring And Reliable Telecommunications

OTT: Over The Top

AI: Artificial Intelligence

MSISDN: Mobile Station International Subscriber Director Number

IMSI: International Mobile Subscriber Identity

# Some Topics of Interest

Some topics of interest to be discussed at WTSA-20 include the followings –

- [WTSA Resolution 72](#) - Human Exposure to Electromagnetic Fields
- [WTSA Resolution 76](#) - Conformance and Interoperability
- [WTSA Resolution 92](#) - Enhancing the standardization activities in the ITU Telecommunication Standardization Sector related to non-radio aspects of international mobile telecommunications
- [WTSA Resolution 98](#) - Internet of Things and Smart Cities

# WTSA Resolution 72

## Human Exposure to Electromagnetic Fields (EMF)

- SG5 is responsible for studying ICT environmental aspects of electromagnetic phenomena and climate change including human exposure to EMF
- SG5 cooperates and collaborates with other organisations working on this topic (e.g. ICNIRP, IEEE)
- With emerging wireless technologies such as 5G, SG5 identifies methodologies for assessing human exposure to EMF
- SG5 develops measures to ensure compliance with relevant international recommendations to protect health against the adverse effect of EMF

# WTSA Resolution 76

## Conformance and Interoperability (C&I)

- SG11 leads ITU's work on C&I testing and establishes test specifications for all types of networks, technologies and services
- “ITU Conformity Mark” programme
  - encourage the emergence of testing expertise and conformity assessment capability in developing countries
  - raise awareness and capacity in developing countries to implement good conformity assessment practices and improve interoperability
- ITU-T establishes the Conformity Assessment Steering Committee to implement a testing laboratory recognition procedure

# WTSA Resolution 92

## Non-radio aspects of IMT

- Multiple SGs are involved on standardisation activities related to non-radio aspects of International Mobile Telecommunications (IMT) as follows –
  - SG11 for signalling, protocol and testing
  - SG12 for quality of service (QoS) and quality of experience (QoE)
  - SG13 for network requirements and architecture
  - SG15 for fronthaul and backhaul network standardisation activities
  - SG17 for network and applications security
- The main objective is to strengthen the cooperation and coordination on IMT standardisation activities in order to provide a productive and practical solution for the global ICT industry



# WTSA Resolution 98

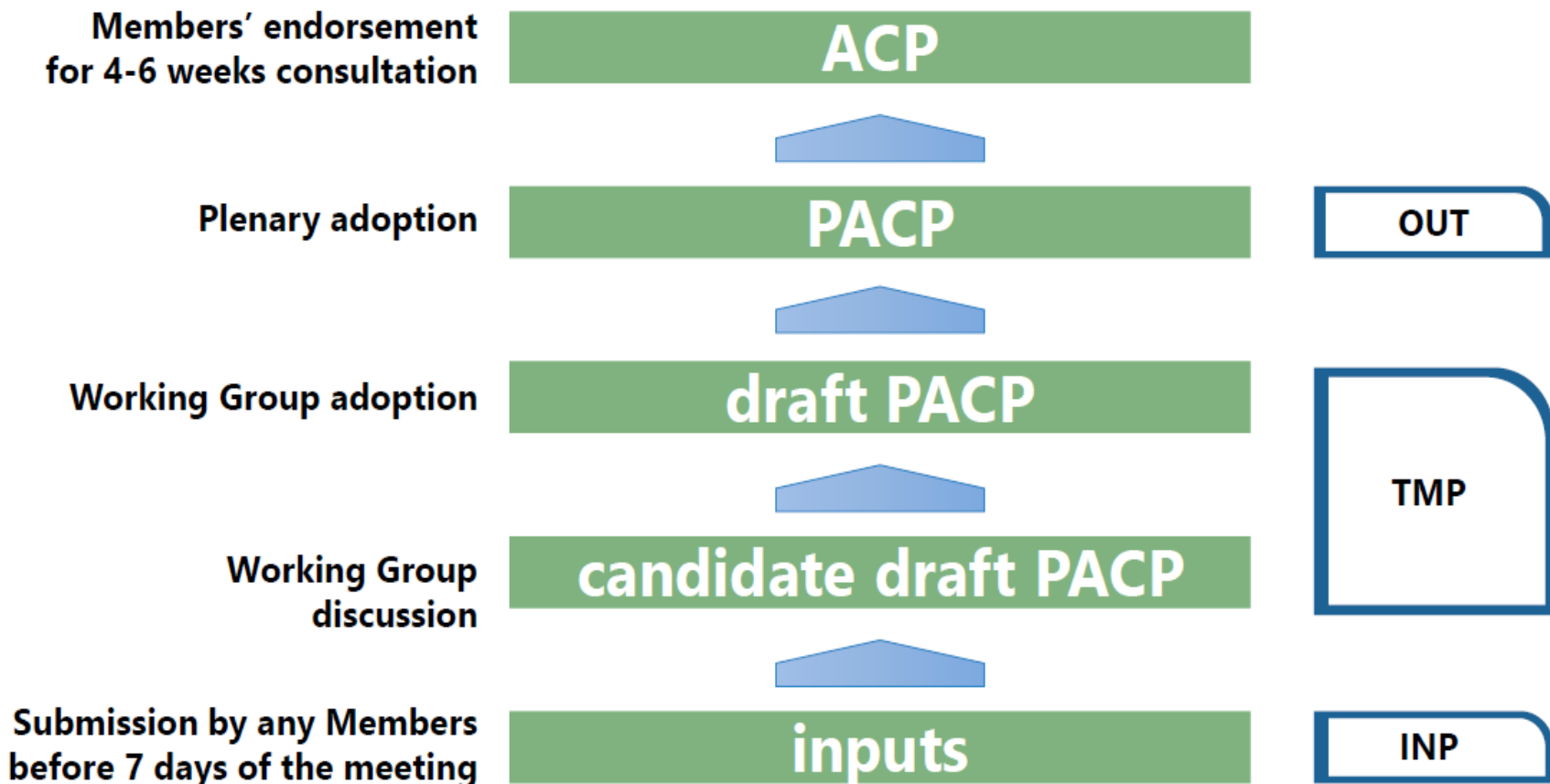
## Internet of Things (IoT) and Smart Cities

- IoT plays an important role in areas such as Industrial IoT, Internet of Vehicles, Smart Home and Digital Economy
- IoT technologies have special characteristics that differ from mobile technologies with various forms and use cases as well as benefits across vertical industries
- SG20 develops international standards to enable the coordinated development of IoT technologies, including machine-to-machine communications and ubiquitous sensor networks
- An important aspect of SG20's work is the development of standards that leverage IoT technologies to address urban-development challenges

# Asia-Pacific Telecommunity (APT)

- APT is an inter-governmental organisation founded on the joint initiatives of ITU and United Nations Economic and Social Commission for Asia-Pacific (UNESCAP)
- APT aims to -
  - foster the development of telecommunication services and information infrastructure in the Asia-Pacific region
  - develop APT Common Proposals (ACPs) for WTSA in respect of members' interest
- Hong Kong is an Associate Member of APT

# Process of Developing ACP by APT



# APT Preparatory Group for WTSA-20 – Work Progress (1)

APT has established the APT Preparatory Group for WTSA-20

- Aims to develop APT Common Proposals (ACPs) for submission to WTSA-20
- One meeting held in 2019 and three meetings in 2020



# APT Preparatory Group for WTSA-20 – Work Progress (2)

- Outcomes of APT Preparatory Group for WTSA-20
  - Adopt PACPs for
    - ▶ revision to some WTSA Resolutions
    - ▶ proposal on new WTSA Resolutions

## Notes

1. WTSA Resolutions for which APT has adopted PACPs on their revision can be found at <http://www.itu.int/md/T17-TSAG-210111-TD-GEN-1007/en>
2. PACPs are subject to consultation for APT Members' endorsement. Adopted ACPs will be submitted to WTSA-20 for discussion

- An extra-ordinary meeting of APT Preparatory Group for WTSA-20 is scheduled for November 2021

# Way Forward

OFCA will continue to -

- monitor the development on ITU-T standardisation works
- attend meetings organised by APT Preparatory Group and WTSA to keep track of the activities, progress and outcomes on relevant topics
- update SSAC on the development and outcomes of WTSA meetings in due course

# Thank You

